



SANDIP FOUNDATION'S
SANDIP INSTITUTE OF TECHNOLOGY AND RESEARCH CENTRE ,
NASHIK
DEPARTMENT OF MECHANICAL ENGINEERING
E-BULLETIN

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Vision of siTRC

To be acclaimed
Institution for
learning and research

Mission of siTRC

To impart in-depth technical
knowledge.

To create conducive
environment for research,
innovation and
entrepreneurship.

To instill the social and
cultural values.



From the HoD's Desk

I am happy to learn that Mechanical Engineering Department, Sandip Institute of Technology and research Centre is coming out with the quarterly departmental E-Bulletin. This E-Bulletin will help to share the news, events achievements of the department among alumni. This E-Bulletin will provide an opportunity for the staff and students to showcase their talents in technical writing. I would like to appreciate and congratulate editorial team of the department for their unrelenting efforts in compiling this E-Bulletin.

From the editor's desk

It gives us an immense pleasure to introduce this E-bulletin of Mechanical Engineering Department. Proper communication plays a vital role in institution's development. This E-bulletin will serve to reinforce and allow increased awareness, improved interaction and integration among all of us. This E-bulletin will be a medium to provide proper acknowledgement and respect all of these efforts and its results.

VISION OF THE DEPARTMENT

To achieve excellence in the domain of Mechanical Engineering by inculcating a culture of learning and research.

MISSION OF THE DEPARTMENT

- To nurture the students of Mechanical Engineering to be competent, motivated and ethical professionals.
- To foster research, innovation and entrepreneurship skills leading to employable and self-reliant technocrats.
- To groom the socio-techno potential for up-liftment of society.

PROGRAMME EDUCATIONAL OBJECTIVES (PEO'S)

- PEO 1: To pursue and establish the career in Mechanical Engineering.
- PEO 2: To demonstrate personal growth by pursuing higher studies, professional development course and/or engineering certifications.
- PEO 3: To inculcate entrepreneurship skills and nurture the ethics in the domain.

PROGRAMME OUTCOMES

1. **Engineering Knowledge** – Apply knowledge of mathematics, science and engineering to solve the real life problems in Mechanical systems. An ability to analyze and interpret data.
2. **Problem Analysis** – Identify, formulate and solve Mechanical Engineering problems in thermal, manufacturing and machine design and conduct new experiments.
3. **Design/development of Solutions** – Design systems like thermal, robotics, mechatronics and machines within realistic constraints.
4. **Conduct investigations of complex problems** – Design and conduct experiments to interpret data and analyse the results.
5. **Modern Tool Usage** – To develop awareness and work on emerging technologies like CAD/CAM software's, Robotics.
6. **The engineer and society** – Understand the impact of an engineer in general and Mechanical Engineering knowledge for welfare of society in particular.
7. **Environment and Sustainability** – Develop or modify eco-friendly and highly reliable as well as sustainable systems.
8. **Ethics** – Take professional decision with a sense of ethical responsibility.
9. **Individual and team work** – Function effectively as an individual and as a member or leader in multidisciplinary and/or cross cultural teams.
10. **Communication** – Communicate effectively for achievements of goals.
11. **Project Management and Finance** – Execute disciplinary and interdisciplinary projects in day-to-day life.
12. **Life-Long Learning** – Imbibe habit of lifelong learning.

ABOUT THE DEPARTMENT

The department is having highly qualified, experienced & motivated faculty members. The department has laboratories with latest testing facilities like multifuel VCR engine, computerized UTM (capacity 100 tonnes), computerized diesel engine test rig & exhaust gas analyzer for Engines. The CAD Centre of the department armed with latest hardware & software like Pro-E wildfire-5, ANSYS, Hypermesh, Mastercam, and AutoCAD etc. Department also have MOU with Altair Engg. Corporation (India) for conducting training on HyperMesh, Radioss (Linear), HyperForm, HyperCrash etc. The strength of department enables to offer the consultancy in all fields related to Mechanical Engineering.

Professor and Head

Departmental activities

Guest Lecture on 'Jigs & Fixtures'

Department of Mechanical Engineering organized Expert Lecture on “*Manufacturing Processes 2*” delivered by Mr. Sachin Sali , Jyoti Structures Ltd , Nasik for TE Mechanical. Mr.Sachin Sali explained the basic point jigs and fixtures. The different types of jigs and fixtures used in industry were discussed.

He explained the effect of various parameters that are taken into consideration while designing jigs and fixtures. Also he discussed the importance and scope of jigs and fixtures in industry The session was concluded with questionnaire asked by students to the expert related to different operations and new technologies used in industry.

Guest Lecture “Career opportunities in Marine Engineering”

Department of Mechanical Engineering had organized guest lecture on “Career opportunities in Marine Engineering” delivered by Mr. D. B. Shah, Dy. Director, Institute of Maritime Studies, Goa for TE & BE Mechanical Students. Mr. D. B. Shah, is having vast experience in the field of Marine Engineering. . Mr. D. B. Shah explained the roles of Marine Engineers are to supervise the work progress to check the work is being done as per specifications and within the time and cost plan.

He also discussed, that preparing layouts, technical drawings and schematics of ship systems also testing marine machinery and equipment in the areas of performance, operation, and environmental impact is the key role of marine engineers.

Marine engineers design, operate, maintain, and repair the mechanical systems of ships. Working closely with the architect who designs the ship structure, a marine engineer designs the propulsion, auxiliary power machinery, and other equipment needed to run the ship.



Expert Lecture on “*Advances in Manufacturing Processes*”

An expert lecture on “*Advances in Manufacturing Processes*”, was organized by Mechanical engineering department of Sandip Institute of Technology & Research Centre. The purpose of the program was to enhance the practical knowledge of students in the field of *Manufacturing Processes*.

During this program Mr. D.T Dargude shared his practical experience in the field of Manufacturing and how machining get evolved from conventional lathe to CNC. He also discussed the importance of on job training to fresher’s and how they (Company) develop the new comers. According to him the hard-work and consistency in addressing the difficult issues in industries develop the overall personality of an engineer. He also insists on human safety while working with advanced machinery like CNC and VMC. Non attentive and unsafe behavior of operator may leads to permanent damage.

The session was concluded by the interactions with students. Students also inquired about selection procedure and criteria of recruitment in his company. Few students were also curious about salary structure and other benefits that company may provide to their employee. All the questions were satisfactorily explained.



Expert Lecture on “*Time Study & Time Management*”

An expert lecture on “*Time Study & Time Management*” was organized by Mechanical Engineering Department of Sandip Institute of Technology & Research Centre. The purpose of the program was to make students aware of time management to set their goal.

During this program Mr. Sachin Sali shared steps for time management and its practical application. The main step involved was commitment, where he explained that students should be realistic while making their any schedule and should involve the steps which are practically possible rather than just writing on paper. He also told that whatever decision the students take, it should be focused and time bound.

He also gave practical examples and explained students, that the time management which they will follow during their academics will help them to set their goal in life. Also he gave tips to students regarding their academics study and how they can manage time for effective study. Also few games related to time management and decision making were taken by the expert and helped students to realize their day to day common mistakes and its practical effect.

The session was concluded by the interactions with students. Students asked no. of question regarding how they can tackle difficult subjects as well as difficult decision in day today life. Altogether it was a healthy interaction and all the difficulties were satisfactorily solved by the Expert.

